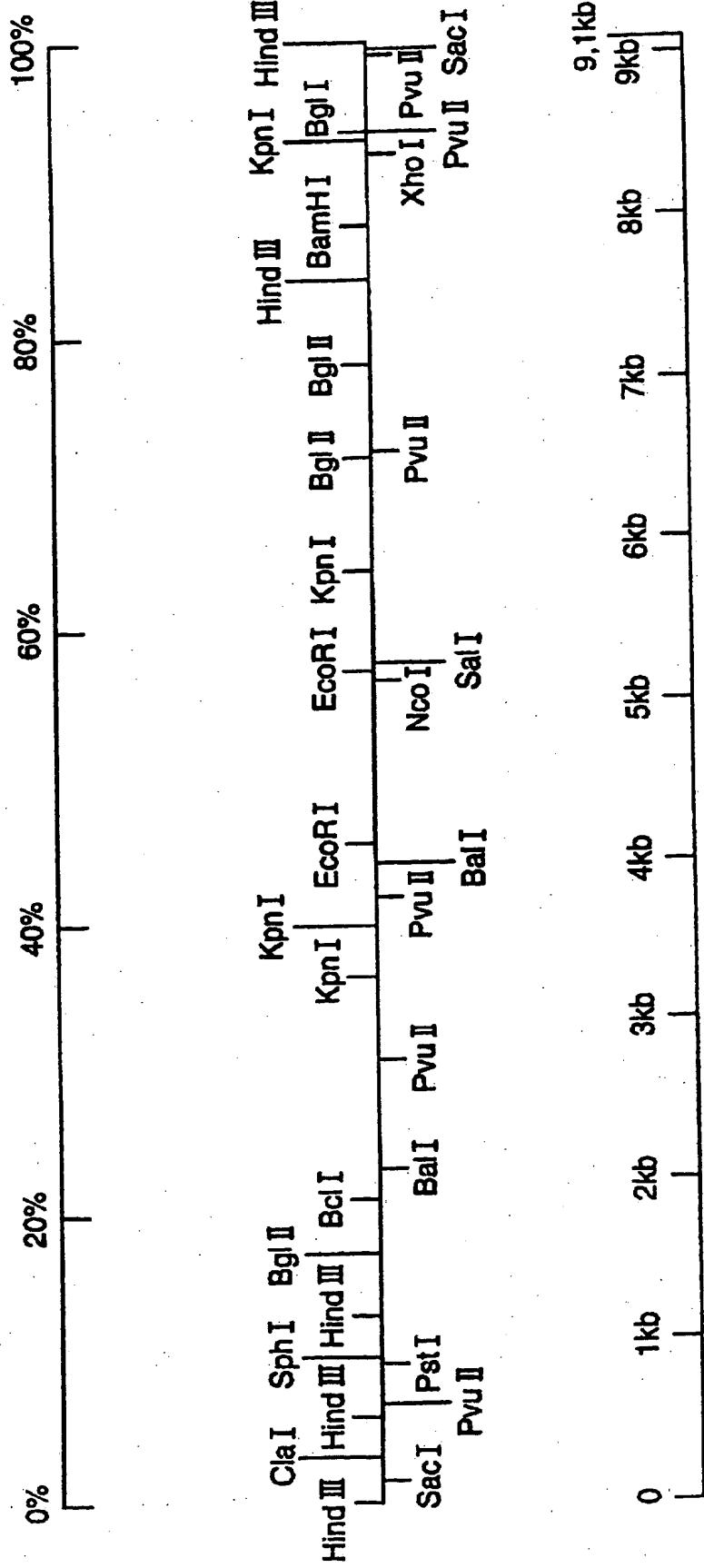




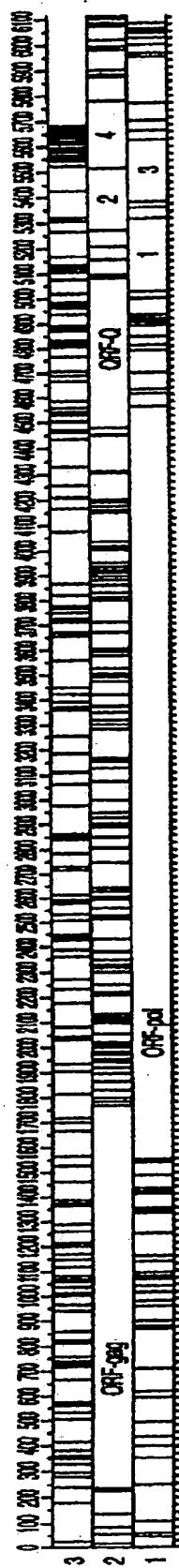
## Replacement Sheet

# FIG. 1

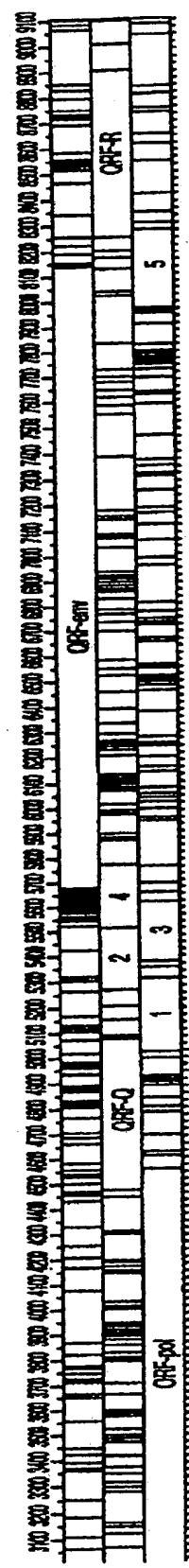




## Replacement Sheet



**FIG. 2**



**FIG. 3**



## Replacement Sheet

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FIG. 4



# Replacement Sheet

PHASE1 K N V \* P Y Q H S G H K T R T K R T L \* R L C R P V L \* N S K S R A S F T G G K  
 2ORF-gag R W Y S P T S I L D 1 R Q G P K E P F R D Y V G R F Y K T L R A E Q A S Q R E V K  
 3 E C I A L P A F W T D K D Q K N P L E T M + T G S I K L E P S K L H R R \*  
 AAGAATGATAGCCCTTACCGCATCTTGACATAGACAAGGCCAAAGAACCTTATAGAGACTATGAGCCGTTCTATAAAGCTTAAGCCGAGCTAACAGGAGCTAA  
 1100 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200  
 K L D D R N L V G P K C E P R L \* D Y F K S I G T S S Y T R R N D D S M S G S G  
 N W M T E T L L V Q N A N P D C K T I L K A L G P A A T L E E M M T A C Q G V C  
 gag I G \* Q K P C W S K M R T Q I V R L F \* K H W D Q Q L H \* K K \* O H V R E W E  
 AAGTGGATCACGCCAACCTGTTGGTCCAAAGCTGAAACCCGATTTGTAAGACTATTTAAAGCTTGGGACCCACTACACTAGAGAAATGATGAGCCGAGCTGGG  
 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320  
 R T R P \* G K S F G \* S N E P S N K P S Y H N D A K R Q P + F P K K D C \* V F P Q  
 G P G H K A R V L A E A N S Q V T N S A T I M M Q R G N F R N Q R K 1 V K C P N  
 gag D P A I K Q E P W L K Q \* A K \* Q I Q L P + C K E A I L G T K E R L L S V S I  
 AGGCCGCGATAAGCCAAAGCTTGGCTAACGGAAGCTTGGCTAACGGAAGCTTGGCTAACGGAAGCTTGGCTAACGGAAGCTTGGCTAACGGAAGCTTGGC  
 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440  
 ORF-pol L W Q R R A M S Q K L Q G P \* E K G L B M R K G R T P N E R L Y \* E T G \* F P START  
 C G K E G H I A R N C R A P R K K G C W R C G X E G H Q M K D C T E R Q A N F L P O R P  
 gag R S G L P T R E G Q G I F P R A D O S O Q P H Q K R A S G L G \* R Q Q L P L R  
 AGGAGAGATCGCCCTCTAACGGAAAGGGGAAATTGGAAAGGGGCTGTGCGAACCTAACGAGGAAACCCACAGAGAGCTTCTGGAGAGAACCTCTCA  
 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560  
 pol R E D L A P F L Q G R A R E F P S S E Q T R A N S P T R R E L Q V W G R D N N S L S  
 gag G K I W P S Y K Q R P G N P L Q S R P E P T A P P E R E S F R S G V E T T P S Q  
 gag G R S G L P T R E G Q G I F P R A D O S O Q P H Q K R A S G L G \* R Q Q L P L R  
 AGGAGAGATCGCCCTCTAACGGAAAGGGGAAATTGGAAAGGGGCTGTGCGAACCTAACGAGGAAACCCACAGAGAGCTTCTGGAGAGAACCTCTCA  
 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680  
 pol E A G A D R Q G T V S F N P P Q I T L W Q R P P L V T I K I G G Q L K E A L L D T  
 gag K Q F P I D K E L Y P L T S L R G L P G N D P S S Q R \* G G N \* R K L Y \* I Q  
 S R S R \* T R N C I L + L P S D H S L A T T P R H N K D R G A T K G S S I R Y R  
 GAAGCAGAGCCGCTAACGGAAGCTTCTAACGAGCTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAG  
 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800  
 pol G A D D T V L E E M S L P G K W K P K M I G G I G G P I K V K Q Y D Q I L I E I S  
 gag P Q M I Q Y \* K K \* V C Q P D C N Q K \* C R L E V L S K \* D S W I R Y S I R S  
 S R \* Y S I K R N E P A K M E T K N D R G N W R F Y Q S K T V \* S D T H R N L  
 GAAGCAGAGCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAG  
 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920  
 pol C G H K A I G T V L V G P T P V N I I G R N L L T Q I C T L R A L \* T P P L S P I E T  
 V D I K S Y R Y S I S R T C Q H N W K A K S V D S P W H P K P S H \* S Y \* N C  
 tetGAGATAAGCTATAGCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAGCTTCTAACGAG  
 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040

**FIG. 5**



## Replacement Sheet

FIG. 6



## Replacement Sheet

EIG 7



## Replacement Sheet

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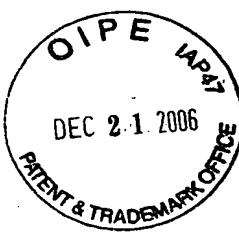
8  
G



## Replacement Sheet

9  
EIC

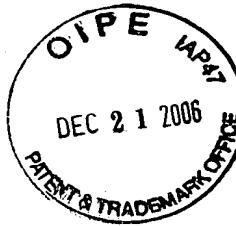




## Replacement Sheet

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FIG.



DEC 21 2008

## Replacement Sheet

G W Q V V K K \* C G W N A Y C K G K N E T S \* A S S R W G G S S I I S R P G K T W  
 G G K W S K S S V V G W P T V R E R M R R A E P A A D G V G G A A S R D L E K H G E  
 ORFR V A S G Q K V V W L D G L L \* G K B \* D E L S O O M G W E Q H L E T W K N M E  
 GGGTGGCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGG  
 8290 8300 8310 8320 8330 8340 8350 8360 8370 8380 8390 8400  
 PHASE 1 R S N H K \* Q Y S S Y Q C C L C L A R S T R G G G G F S S H T S G T F K T N D L Y  
 A I T S S N T A A T N A A C A W L P A Q E P E E V G F P V T P Q V P L R P M T Y  
 3 R Q S O V A I Q O L P M L L V P G \* K H K R R W V F O S H L R Y L \* D Q \* L T  
 AGCAATCACAAAGTAGCAATACGGCTACCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG  
 8410 8420 8430 8440 8450 8460 8470 8480 8490 8500 8510 8520  
 Q G S C R S \* P L F K R K G G T G R A N S L P T K T R Y P \* S V D L P H T R L L  
 R Q K A A V D L S H F L K E K G L I H S Q R Q D I L D L W I T Q G Y F  
 R Q L \* L L A T F K R G D W K G \* F T P N E D K I S L I C G S T T H K A T S  
 CAAGGCAGCTGTAGATCTTAGCCACTTTAGCCACTTTAGCCACTTTAGCCACTTTAGCCACTTTAGCCACTTTAGCC  
 8530 8540 8550 8560 8570 8580 8590 8600 8610 8620 8630 8640  
 P \* L A E L H T R A R G Q I S P T D L W M V L Q A S T S \* A R \* G R R G Q \* R R E  
 P D W Q N Y T P G P G V R Y P L T F G W C Y K L V P V E P D K V E E A N K G E E N  
 R L I G R T T H P G C S D I H \* P L D G A T S \* Y Q L Q I R \* K R P I K E R T  
 CCCTGATTGAGAACTACACACCACGGCCAGGGTCAAGTATCCACTGACCTGATGGATGAGAAAGTTAGAGTGGAGGT  
 8660 8670 8680 8690 8700 8710 8720 8730 8740 8750 8760 8770  
 H Q L V T P C E P A W N C \* P \* E R S V R V B V \* Q P P S I S R G P R A A S G  
 T S L L H P V S L H G M D D P E R E V L E W R P D S R L A P H S V A R E L H P E  
 R P A C Y T L \* A C M E W M T L R E K C \* S G G L T A A \* H F I T W P E S C I R  
 CACCAAGTTTACACCCCTGACCTGAGCTGATGGATGAGAAAGTTAGAGTGGAGGT  
 8780 8790 8800 8810 8820 8830 8840 8850 8860 8870 8880 8890  
 V L Q E L L \* T S S L L Q G T F R W S L S R E A W P G R N W G V A S P Q M L H I S G  
 T F K N C \* H R A C L Y K G L S A G D F P G R W G L G G T G E P S D A A Y K  
 R T S R T A D I R E L A T F P L G T F Q G V A W A G E L G S G E P S D A A Y K  
 R T S R T A D I R E L A T F P L G T F Q G V A W A G E L G S G E P S D A A Y K  
 GTACTCAAGACTGGACATCCAGGACTGGACATCCAGGACTGGACATCCAGGACTGGACATCCAGGACTGGACATCCAGG  
 8900 8910 8920 8930 8940 8950 8960 8970 8980 8990 9000

END-ORFR  
 S C F L P V L G L S G + T R F E P G S S L A N + G T H C L S L N K  
 A A F C L Y W V S L V P P D L S L S A L W L T R E P T A \* A P S I  
 A L L F A C T G S T W L D Q I I \* A W S E L S G + L G N P L L K P O  
 AGCTGCTTTCGCTGTACTGGGTCTCTGTTAGGATTGAGCTGGGACTCTGGCTAACTAGGGAAACCCACTGTTAAGCTTAAATA  
 9010 9020 9030 9040 9050 9060 9070 9080 9090 9100

FIG. 12



## Replacement Sheet

N R G E Q E M E P V D P R L E P W K H P G S Q P K  
 T F E S K K W S Q \* I L D \* S P G S I Q E V S L  
 CAACAGAGGAGAGCAAGAAATGGAGCCAGTAGATCCTAGACTAGAGCCCTGGAAGCATCCAGGAAGTCAGCCTAA  
 5290 5300 5310 5320 5330 5340 5350  
  
 P S L F H N K S L R H L L W Q E E A E T A T K T S  
 Q V C F T T K A L G I S Y G R K K R R Q R R R P P  
 K F V S Q Q K P \* A S P M A G R S G D S D E D L L  
 CCAAGTTGTTCAACAAAAGCCTAGGCATCTCTATGGCAGGAAGCGGAGACAGGACGAAGACCTCCT  
 5410 5420 5430 5440 5450 5460 5470  
  
 S T C N A T Y T N S N S S I S S S S N N N S N S C V  
 V H V M Q P I Q I A I A A L V V A I I I A I V V W  
 Y M \* C N L Y K \* Q \* Q H \* \* \* Q \* \* \* Q \* L C C  
 AGTACATGTAATGCAACCTATAACAAATAGCAATAGCAGCTAGTAGCAATAATAATAGCAATAGTTGTGTGG  
 5530 5540 5550 5560 5570 5580 5590  
  
 N R Q V N \* \* T N R K S R R Q W Q \* E \* R R N I S  
 I D R L I D R L I E R A E D S G N E S E G E I S A  
 \* T G \* L I D \* \* K E Q K T V A M R V K E K Y Q H  
 AATAGACAGGTTAATTGATAGACTAATAGAAAGAGCAGAAGACAGTGGCAATGAGAGTGAAGGAGAAATATCAGCA  
 5650 5660 5670 5680 5690 5700 5710  
  
 Y \* \* S V V L Q K N C G S Q S I M G Y L C G R K Q  
 I D D L \* C Y R K I V G H S L L W G T C V E G S N  
 L M I C S A T B K L W V T V Y Y G V P V W K E A T  
 TATTGATGATCTGTAGTGTACAGAAAATTGTGGGTACAGTCTATTATGGGTACCTGTGTGGAAAGGAAGCCAAC  
 5770 5780 5790 5800 5810 5820 5830  
  
 R Y I M F G P H M P V Y P Q T P T H K K \* Y W \* M  
 G T \* C L G H T C L C T H R P Q P T R S S I G K C  
 V H N V W A T H A C V P T D P N P Q E V V L V N V  
 AGGTACATAATGTTGGGCCACACATGCCGTGTACCCACAGACCCCACACAGAAAGTAGTATTGGTAAATGT  
 5890 5900 5910 5920 5930 5940 5950  
  
 C M R I \* S V Y G I K A \* S H V \* N \* P H S V L V  
 A \* G Y N Q F M G S K P K A M C K I N P T L C \* F  
 H E D I I S L W D Q S L K P C V K L T P L C V S L  
 TGCATGAGGATATAATCAGTTATGGATCAAAGCTAAAGCCATGTCTAAAATTAAACCCACTCTGTGTAGTT  
 6010 6020 6030 6040 6050 6060 6070  
  
 I P I V V A G K \* \* W R K E R \* K T A L S I S A Q  
 Y Q \* \* \* R G N D D G E R R D K K L L F Q Y Q H K  
 T N S S I S G E M M M E K G E I K N C S I F N I S T S  
 ATACCAATAGTAGCAGGAAATGATGATGGAGAAAGGAGAGATAAAAATGCTCTTCAATATCAGCACAAG  
 6130 6140 6150 6160 6170 6180 6190  
  
 L I \* Y Q \* I M I L P A I R \* Q V V T P Q S L H R  
 \* Y N T N R \* \* Y Y Q L Y V D K L \* H L S H Y T G  
 D I I P I D N D T T S Y T L T S C N T S I V I T Q A  
 TTGATATAATACCAATAGATAATGATACTACAGCTATACGTTACAAGTTGTAACACCTCAGTCATTACACAGGG  
 6250 6260 6270 6280 6290 6300 6310  
  
 P R L V L R P \* N V I I R R S M E Q D H V Q M S A

**FIG. 13**



## Replacement Sheet

P G S Q P K T A C I T C Y C K K C C C F H C  
 Q E V S L K L L V P L A I V K S V A F I A  
 CAGGAAGTCAGCCTAAAAGTGTCTGCTTCAAGGAGTCAGACTCATCAAGTTCTATCAAAGCAGTAAGT  
 5350 5360 5370 5380 5390 5400

A T K T S S R Q S D S S S F S I K A V S  
 Q R R R P P Q G S Q T H Q V S L S K Q \* V  
 S D E D L L K A V R L I K F L Y Q S S K \*  
 AGCGACGAAGACCTCCTCAAGGCAGTCAGACTCATCAAGTTCTATCAAAGCAGTAAGT  
 5470 5480 5490 5500 5510 5520

S N S C V V H S N H R I \* E N I K T K K  
 I A I V V W S I V I I E Y R K I L R Q R K  
 \* Q \* L C G P \* \* S \* N I G K Y \* D K E K  
 TAGCAATAGTTGTGTGGTCCATAGTAATCATAGAATATAGGAAAATATTAAGACAAAGAAA  
 5590 5600 5610 5620 5630 5640

R R N I S T C G D G G G N G A P C S L G  
 G E I S A L V E M G V E M G H H A P W D  
 K E K Y Q H L W R W G W K W G T M L L G I  
 AAGGAGAAAATATCAGCACTTGTGGAGATGGGGTGGAAATGGGGCACCATGCTCCTGGGA  
 5710 5720 5730 5740 5750 5760

C G P K Q P P L Y F V H Q M L K H M I Q  
 V E G S N H H S I L C I R C \* S I \* Y R  
 V W K E A T T T L F C A S D A K A Y D T E  
 TGTGGAAAGGAAGCAACCACCTCTATTGTGCATCAGATGCTAAAGCATATGATACAG  
 5830 5840 5850 5860 5870 5880

\* Y W \* M \* Q K I L T C G K M T W \* N R  
 S I G K C D R K F \* H V E K \* H G R T D  
 V V L V N V T E N F N M W K N D M V E Q M  
 TAGTATTGGTAAATGTGACAGAAAATTAAACATGTGGAAAATGACATGGTAGAACAGA  
 5950 5960 5970 5980 5990 6000

H S V L V \* S A L I W G M L L I P I V V  
 T L C \* F K V H \* F G E C Y \* Y Q \* \* \*  
 P L C V S L K C T D L G N A T N T N S S N  
 CACTCTGTGTTAGTTAAAGTGCAGTGTGGAAATGCTACTAACCAATAGTAGTA  
 6070 6080 6090 6100 6110 6120

S I S A Q A \* E V R C R K N M H F F I N  
 Q Y O H K H K R \* G A E R I C I F L \* T  
 F N I S T S I R G K V Q K E Y A F F Y K L  
 TCAATATCAGCACACAAGCATAAGAGGTAAAGGTGCAGAAAGAATATGCATTAAAC  
 6190 6200 6210 6220 6230 6240

Q S L H R P V Q R Y P L S Q F P Y I I V  
 S H Y T G L S K G I L \* A N S H T L L C  
 S V I T Q A C P K V S F E P I P I H Y C A  
 CAGTCATTACACAGGCCTGTCCAAAGGTATCCTTGAGCCAATTCCACATTATTGTG  
 6310 6320 6330 6340 6350 6360

V Q M S A Q Y N V H M E L G Q \* Y Q L N

**FIG. 14**

Replacement Sheet

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P C W F C D S K M \* \* \* D V Q W N R T M Y K C O  
 P A G F A I L R C N **N K T** F **N G T** G P C T **N V S**  
 CCCC GG CT GG TT TG CG AT T C T AAAA T G T A A T A A G A C G T C A A T G G A A C A G G A C C A T G T A C A A A T G T C A G C  
 6370 6380 6390 6400 6410 6420 6430  
  
 C C \* M A V \* Q K K R \* \* L D L P I S Q T M L K P  
 A V E W O S S R R R G S N \* I C O F H R Q C \* N H  
 L L **N G S** L A E E E V V I R S A **N F T** D N A K T  
 TG CT GT T G A A T G G C A G T C T A G C A G A A G A G G T A T T A G A T C T G C C A A T T C A C A G A C A A T G C T A A A C C A  
 6490 6500 6510 6520 6530 6540 6550  
  
 P T T I Q E K V S V S R G D Q G E H L L Q \* E K \*  
 Q Q O Y K K K Y P Y P E G T R E S I C Y N R K N R  
 N **N N T** R K S I R I Q R G P G R A F V T I G K I  
 C C A A C A A C A A T A C A A G A A A A G T A T C C G T A T C C G A G A G G G A C C A G G G A G G C A T T G T T A C A A T A G G A A A A T A G  
 6610 6620 6630 6640 6650 6660 6670  
  
 M P L \* N R \* L A N \* E N N L E I I K Q \* S L S N  
 C H F K T D S \* Q I K R T I W K \* \* N N N L \* A I  
**A T L K Q I A S K L R E Q P G N** **N K I** I I F K Q  
 ATGCCA CTT T A A A C A G A T A G C T A G C A A T T A A G A G A C A A T T G G A A A T A A T A A A C A A T A A T C T T A A G C A A  
 6730 6740 6750 6760 6770 6780 6790  
  
 E G N F S T V I Q H N C L I V L G L I V L G V L K  
 R G I F L L \* F N T T V \* \* Y L V \* \* Y L E Y \* R  
 G E F F Y C **N S T** Q L F **N S T** W F **N S T** W S T E  
 GAGGGGAATTTCTACTGTAATTCAACACA ACTGTTAATAGTACTTGGACTACTGAAG  
 6850 6860 6870 6880 6890 6900 6910  
  
 E \* N N L \* T C G R K \* E K Q C M P L P S A D K L  
 N K T I Y K H V A G S R K S N V C P S H Q R T N \*  
 I K Q F I N M W Q E V G K A M Y A P P I S G Q I  
 G A A T A A A C A A T T A T A A C A T G T G C A G G A G T A G G A A A G C A A T G T A T G C C C C T C C C A T C A G C G G A C A A A T T A  
 6970 6980 6990 7000 7010 7020 7030  
  
 V I T T M G P R S S D L E E E I \* G T I G E V N Y  
 \* \* Q O W V R D L Q T W R R R Y E G Q L E K \* I I  
 N N N **N G S** E I F R P G G G D M R D N W R S E L  
 G T A A A C A A C A A T G G G T C C G A G A T C T C A G A C C T G G A G G A G A T A T G A G G G A C A A T T G G A G A A G T G A A T T A T  
 7090 7100 7110 7120 7130 7140 7150  
  
 P R Q R E E W C R E K K E Q W E \* E L C S L G S W  
 Q G K E K S G A E R K K S S G N R S F V P W V L G  
 K A K R R V V Q R E K R A V G I G A L F L G F L  
 C C A A G G C A A A G A G A A G A G T G G T G C A G A G A G A A A A G A G C A G T G G G A A T A G G A G C T T G T T C T T G G  
 7210 7220 7230 7240 7250 7260 7270  
  
 Y R P D N Y C L V \* C S S R T I C \* G L L R R N S  
 T G Q T I I V W Y S A A A E Q F A E G Y \* G A T A  
 Q A R Q L L S G I V Q Q Q N N L L R A I E A Q Q  
 T A C A G G C C A G A C A A T T A T G T C T G G T A T A G T G C A G C A G C A G A C A A T T G C T G A G G G C T A T T G A G G C G C A A C A G C  
 7330 7340 7350 7360 7370 7380 7390  
  
 E S W L W K D T \* R I N S S W G F G V A L E N S F

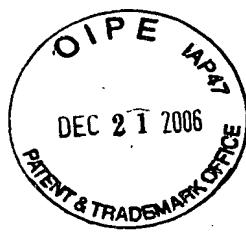
FIG.15



# Replacement Sheet

N R T M Y K C O H S T M Y T W N \* N S S I N S T  
 T G P C T N V S T V Q C T H G I R P V V S T O L  
 AACAGGACCATGTACAAATGTCAGCACAGTACAATGTACACATGGAATTAGGCCAGTAGTATCAACTCAAC  
 6420 6430 6440 6450 6460 6470 6480  
  
 P I S Q T M L K P \* \* Y S \* T N L \* K L I V Q D  
 O F H R Q C \* N H N S T A E P I C R N \* L Y K T  
 N F T D N A K T I I V Q L N O S V E I N C T R P  
 CAATTTCACAGACAATGCTAAAACCATAATAGTACAGCTGAACCAATCTGTAGAAATTAAATTGTACAAGAC  
 6540 6550 6560 6570 6580 6590 6600  
  
 F H L L Q \* E K \* E I \* D K H I V T L V E Q N G  
 S I C Y N R K N R K Y E T S T K \* H \* \* S K M E  
 A F V T I G K I G N M R Q A H C N I S R A K W N  
 AGCATTGTTACAATAGGAAAAATAGGAAATATGAGACAAGCACATTGTAACATTAGTAGAGCAAAATGGA  
 6660 6670 6680 6690 6700 6710 6720  
  
 I I K Q \* S L S N P Q E G T Q K L \* R T V L I V  
 \* \* N N N L \* A I L R R G P R N C N A Q F \* L W  
 N K I I I F K Q S S G G D P E I V T H S F N C G  
 TAATAAAACAATAATCTTAAGCAATCCTCAGGAGGGGACCCAGAAATTGTAACGCACAGTTAATTGTG  
 6780 6790 6800 6810 6820 6830 6840  
  
 C L I V L G V L K G Q I T L K E V T Q S H S H A  
 V \* \* Y L E Y \* R V K \* H \* R K \* H N H T P M Q  
 P N S T W S T E G S N N T E G S D T I T L P C R  
 TTTTAATAGTACTTGGAGTACTGAAGGGTCAAATAACACTGAAGGAAGTGACACAATCACACTCCCATGCA  
 6900 6910 6920 6930 6940 6950 6960  
  
 M P L P S A D K L D V H Q I L Q G C Y \* Q E M V  
 C P S H Q R T N \* M F I K Y Y R A A I N K R W W  
 A P P I S G Q I R C S S N I T G L L L T R D G G  
 TGCCCCTCCATCAGCGGACAAATTAGATGTCATCAAATATTACAGGGCTGCTATTAACAAGAGATGGTG  
 7020 7030 7040 7050 7060 7070 7080  
  
 \* G T I G E V N Y I N I K \* \* K L N H \* E \* H P  
 E G Q L E K \* I I \* I \* S S K N \* T I R S S T H  
 R D N W R S E L Y K Y K V V K I E P L G V A P T  
 GAGGGACAATTGGAGAAGTGAATTATATAATATAAGTAGTAAAATTGAACCATTAGGAGTAGCACCCA  
 7140 7150 7160 7170 7180 7190 7200  
  
 \* E L C S L G S W E Q Q E A L W A H G Q \* R \* R  
 R S F V P W V L G S S R K H Y G R T V N D A D G  
 G A L F L G F L G A A G S T M G A R S M T L T V  
 AGGAGCTTGTCTGGTTCTGGAGCAGCAGGAAGCACTATGGCGCACGGTCAATGACGCTGACGG  
 7260 7270 7280 7290 7300 7310 7320  
  
 C \* G L L R R N S I C C N S Q S G A S S S S R Q  
 A E G Y \* G A T A S V A T H S L G H Q A A P G K  
 L R A I E A Q Q H L L Q L T V W G I K O L Q A R  
 GCTGAGGGCTATTGAGGCCAACAGCATCTGTCACAGTCTGGGGCATCAAGCAGCTCCAGGCAA  
 7380 7390 7400 7410 7420 7430 7440  
  
 G V A L E N S F A P L L C L G M L V G V I N L

FIG. 16



## Replacement Sheet

N P G C G K I P K G S T A P G D L G L L W K T H  
 I L A V E R Y L K D Q Q L L G I W G C S G K L I  
 GAATCCTGGCTGTGGAAAGATACTAAAGGATCAACAGCTCCTGGGATTGGGTTGCTCTGGAAAACTCATI  
 7450 7460 7470 7480 7490 7500 7510

 W N R F G I T \* P G W S G T E K L T I T Q A \* Y I  
 G T D L E \* H D L D G V G Q R N \* Q L H K L N T  
 E Q I W N N M T W M E W D R E I N N Y T S L I H  
 TGGAACAGATTGGAATAACATGACCTGGATGGAGTGGGACAGAGAAATTAAACAATTACACAAGCTTAATACAT  
 7570 7580 7590 7600 7610 7620 7630

 N Y W N \* I N G Q V C S I G L T \* Q I G C G I \* K  
 I I G I R \* M G K F V E L V \* H N K L A V V Y K  
 L L E L D K W A S L W N W F N I T N W L W Y I K  
 AATTATTGGAATTAGATAAAATGGCAAGTTGTGGATTGGTTAACATAACAAATTGGCTGGTATATAAAA  
 7690 7700 7710 7720 7730 7740 7750

 L L Y F L \* \* I E L G R D I H H Y R F R P T S Q P  
 C C T F Y S E \* S \* A G I F T I I V S D P P P N  
 A V L S I V N R V R Q G Y S P L S F Q T H L P T  
 TTGCTGTACTTCTATAGTAGAGTTAGGCAGGGATATTCAACCATTATCGTTCAAGACCCACCTCCCAACC  
 7810 7820 7830 7840 7850 7860 7870

 R E T E T D P F D \* \* T D P \* H L S G T I C G A L  
 E R Q R Q I H S I S E R I L S T Y L G R S A E P  
 R D R D R S I R L V N G S L A L I W D D L R S L  
 AGAGAGACAGAGACAGATCATTGATTAGTGAACGGATCCTTAGCACTTATCTGGACGATCTGGGAGCCT  
 7930 7940 7950 7960 7970 7980 7990

 T R I V E L L G R R G W E A L K Y W W N L L Q Y W  
 R G L W N F W D A G G G K P S N I G G I S Y S I  
 E D C G T S G T Q G V G S P Q I L V E S P T V L  
 ACGAGGATTGTGGAACTCTGGGACGCAGGGGTGGGAAGCCCTCAAATATTGGTGAATCTCCTACAGTATT  
 8050 8060 8070 8080 8090 8100 8110

 A I A V A E G T D R V I E V V Q G A C R A I R H I  
 P \* Q \* L R G Q I G L \* K \* Y K E L V E L F A T  
 H S S S \* G D R \* G Y R S S T R S L \* S Y S P H  
 GCCATAGCACTGAGCTGAGGGACAGATAGGGTTATAGAAGTAGTACAAGGAGCTGTAGAGCTATTGCCACAT  
 8170 8180 8190 8200 8210 8220 8230

 G W Q V V K K \* C G W M A Y C K G K N E T S \* A S  
 G G K W S K S S V V G W P T V R E R M R R A E P  
 V A S G Q K V V W L D G L L \* G K E \* D E L S Q  
 GGGTGGCAAGTGGTCAAAAGTAGTAGTGTGGTTGGATGGCTACTGTAAGGGAAAGAATGAGACGAGCTGAGCCAG  
 8290 8300 8310 8320 8330 8340 8350

 S N H K \* Q Y S S Y Q C C L C L A R S T R G G G G  
 A I T S S N T A A T N A A C A W L F A Q E E E E  
 Q S Q V A I Q Q L P M L L V P G \* K H K R R R R  
 AGCAATACAAGTAGCAATAACAGCAGCTACCAATGCTGCTGTGGCTAGAAGCACAAGAGGAGGAGGAGG  
 8410 8420 8430 8440 8450 8460 8470

 D G S C R S \* P L F K R K G G T G R A N S L P I K

**FIG. 17**



## Replacement Sheet

W K T H L H H C C A L E C \* L E \* \* I S  
 G K L I C T T A V P W N A S W S N K S L  
 CTGGAAAACCTATTGACCACTGCTGCTGGAAATGCTAGTTGGAGTAATAATCTC  
 7510 7520 7530 7540 7550 7560

 Q A \* Y I P \* L K N R K T S K K R M N K  
 K L N T F L N \* R I A K P A R K E \* T R  
 S L I H S L I E E S Q N Q Q E K N E Q E  
 CAAGCTTAATACATTCTTAATTGAAGAATCGCAAAACCAGCAAGAAAAGAATGAACAAAG  
 7630 7640 7650 7660 7670 7680

 C G I \* K Y S \* \* \* E A W \* V \* E \* F  
 V V Y K N I H N D S R R L G R F K N S F  
 W Y I K I F I M I V G G L V G L R I V F  
 TGTGGTATATAAAAATATTCTATAATGATAGTAGGAGGCTTGGTAGGTTAAGAATAGTT  
 7750 7760 7770 7780 7790 7800

 P T S Q P R G D P T G P K E \* K K K V E  
 P P P N P E G T R Q A R R N R R R R W R  
 H L P T P R G P D R P E G I E E E G G E  
 CCACCTCCCAACCCCCGAGGGGACCCGACAGGCCGAAGGAATAGAAGAAGAAGGTGGAG  
 7870 7880 7890 7900 7910 7920

 I C G A L C L F S Y H R L R D L L L I V  
 S A E P C A S S A T T A \* E T Y S \* L  
 L R S L V P L Q L P P L E R L T L D C N  
 TCTGGAGCCTTGTGCTCTCAGCTACCACCGCTTGAGAGACTTACTCTGATTGTA  
 7990 8000 8010 8020 8030 8040

 L L Q Y W S Q E L K N S A V S L L N A T  
 S Y S I G V R N \* R I V L L A C S M P Q  
 P T V L E S G T K E \* C C \* L A Q C H S  
 TCTTACAGTATTGGAGTCAGGAACAAAGAATAGTGCTGTTAGCTGCTCAATGCCACA  
 8110 8120 8130 8140 8150 8160

 A I R H I P R R I R Q G L E R I L L \* D  
 L F A T Y L E E \* D R A W K G F C Y K M  
 Y S P H T \* K N K T G L G K D F A I R W  
 CTATTGCCACATACCTAGAAGAATAAGACAGGGCTTGGAAAGGATTTGCTATAAGAT  
 8230 8240 8250 8260 8270 8280

 T S \* A S S R W G G S S I S R P G K T W  
 R A E P A A D G V G A A S R D L E K H G  
 E L S Q Q Q M G W E Q H L E T W K N M E  
 CGAGCTGAGCCAGCAGATGGGTGGGAGCAGCATCTGAGACCTGGAAAAACATGG  
 8350 8360 8370 8380 8390 8400

 Q G G G G G F S S H T S G T F K T N D L  
 E E E E V G F P V T P Q V P L R P M T Y  
 R R R R W V F Q S H L R Y L \* D Q \* L T  
 GAGGAGGAGGAGGTGGGTTCCAGTCACACCTCAGGTACCTTAAGACCAATGACTTA  
 8470 8480 8490 8500 8510 8520

 L P T K T R Y P \* S V D L P H T R L L

**FIG. 18**



## Replacement Sheet

10	20	30	40	50	60
AAGCTTGCCT	TGAGTGCTTC	AAGTAGTGTG	TGCCCGTCTG	TTGTGTGACT	CTGGTAAC
70	80	90	100	110	120
GAGATCCCTC	AGACCCCTTT	AGTCAGTGTG	GAAAATCTCT	AGCAGTGGCG	CCCGAACAGG
130	140	150	160	170	180
GACTTGAAAG	CGAAAGGGAA	ACCAGAGGAG	CTCTCTCGAC	GCAGGACTCG	GCTTGCTGAA
190	200	210	220	230	240
GCGCGCACGG	CAAGAGGCGA	GGGGAGGCGA	CTGGTGAGTA	CGCCAAAAAT	TTTGACTAGC
250	260	270	280	290	300
GGAGGCTAGA	AGGAGAGAGA	TGGGTGCGAG	AGCGTCAGTA	TTAAGCGGGG	GAGAATTAGA
310	320	330	340	350	360
TCGATCGGAA	AAAATTGCGGT	TAAGGCCAGG	GGCAAAGAAA	AAATATAAAAT	AAAAACATAT
370	380	390	400	410	420
AGTATGGGCA	AGCAGGGAGC	TAGAACGATT	CGCTGTTAAT	CCTGGCCTGT	TAGAACATC
430	440	450	460	470	480
AGAAGGCTGT	AGACAAATAC	TGGGACAGCT	ACAACCATCC	CTTCAGACAG	GATCAGAAGA
490	500	510	520	530	540
ACTTAGATCA	TTATATAATA	CACTAGCAAC	CCTCTATTGT	GTGCATCAAA	GGATAGAGAT
550	560	570	580	590	600
AAAAGACACC	AAGGAAGCTT	TAGACAAGAT	AGAGGAAGAG	CAAAACAAAA	GTAAGAAAAA
610	620	630	640	650	660
AGCACAGCAA	GCAGCAGCTG	ACACAGGACA	CAGCAGCCAG	GTCAGCCAAA	ATTACCCTAT
670	680	690	700	710	720
AGTGCAGAAC	ATCCAGGGC	AAATGGTACA	TCAGGCCATA	TCACCTAGAA	CTTTAAATGC
730	740	750	760	770	780
ATGGGTAAAA	GTAGTAGAAG	AGAAGGCTTT	CAGCCCAGAA	GTGATAACCA	TGTTTCAGC
790	800	810	820	830	840
ATTATCAGAA	GGAGCCACCC	CACAAGATTT	AAACACCATG	CTAAACACAG	TGGGGGACA
850	860	870	880	890	900
TCAAGCAGCC	ATGCAAATGT	TAAAAGAGAC	CATCAATGAG	GAAGCTGCAG	AATGGGATAG
910	920	930	940	950	960
AGTGCATCCA	GTGCATGCAG	GGCCTATTGC	ACCAGGCCAG	ATGAGAGAAC	CAAGGGAAAG
970	980	990	1000	1010	1020
TGACATAGCA	GGAACTACTA	GTACCCCTCA	GGAACAAATA	GGATGGATGA	CAAATAATCC
1030	1040	1050	1060	1070	1080
ACCTATCCCC	GTAGGAGAAA	TTTATAAAAG	ATGGATAATC	CTGGGATTAA	ATAAAATAGT
1090	1100	1110	1120	1130	1140

**FIG. 19**



## Replacement Sheet

AAGAATGTAT	AGCCCTACCA	GCATTCTGGA	CATAAGACAA	GGACCAAAAG	AACCCTTTAG
1150	1160	1170	1180	1190	1200
AGACTATGTA	GACCGGTTCT	ATAAAACCT	AAGAGCCGAG	CAAGCTTCAC	AGGAGGTAAA
1210	1220	1230	1240	1250	1260
AAATTGGATG	ACAGAACCT	TGTTGGTCCA	AAATGCGAAC	CCAGATTGTA	AGACTATTTT
1270	1280	1290	1300	1310	1320
AAAAGCATTG	GGACCAGCAG	CTACACTAGA	AGAAATGATG	ACAGCATGTC	AGGGAGTGGG
1330	1340	1350	1360	1370	1380
AGGACCCGGC	CATAAGGCAA	GAGTTTGGC	TGAAGCAATG	AGCCAAGTAA	CAAATTCAGC
1390	1400	1410	1420	1430	1440
TACCATAATG	ATGCAAAGAG	GCAATTCTAG	GAACCAAAGA	AAGATTGTTA	AGTGTTCAA
1450	1460	1470	1480	1490	1500
TTGTGGCAAA	GAAGGGCACA	TAGCCAGAAA	TTGCAGGGCC	CCTAGGAAAA	AGGGCTGTTG
1510	1520	1530	1540	1550	1560
GAAATGTGGA	AAGGAAGGAC	ACCAAATGAA	AGATTGTACT	GAGAGACAGG	CTAATTTTTT
1570	1580	1590	1600	1610	1620
AGGGAAAGATC	TGGCCTTCCT	ACAAGGGAAAG	GCCAGGGAAAT	TTTCTTCAGA	GCAGACCAGA
1630	1640	1650	1660	1670	1680
GCCAACAGCC	CCACCAGAAG	AGAGCTTCAG	GTCTGGGGTA	GAGACAACAA	CTCCCTCTCA
1690	1700	1710	1720	1730	1740
GAAGCAGGAG	CCGATAGACA	AGGAACGTGTA	TCCCTTAACT	TCCCTCAGAT	CACTCTTGG
1750	1760	1770	1780	1790	1800
CAACGACCCC	TCGTACAAT	AAAGATAGGG	GGGCAACTAA	AGGAAGCTCT	ATTAGATACA
1810	1820	1830	1840	1850	1860
GGAGCAGATG	ATACAGTATT	AGAAGAAATG	AGTTTGCCAG	GAAGATGGAA	ACCAAAAATG
1870	1880	1890	1900	1910	1920
ATAGGGGGAA	TTGGAGGTTT	TATCAAAGTA	AGACAGTATG	ATCAGATACT	CATAGAAATC
1930	1940	1950	1960	1970	1980
TGTGGACATA	AAGCTATAGG	TACAGTATTA	GTAGGACCTA	CACCTGTCAA	CATAATTGGA
1990	2000	2010	2020	2030	2040
AGAAATCTGT	TGACTCAGAT	TGGTTGCACT	TTAAATTTC	CCATTAGTCC	TATTGAAACT
2050	2060	2070	2080	2090	2100
GTACCACTAA	AATTAAAGCC	AGGAATGGAT	GGCCCAAAAG	TTAAACAATG	GCCATTGACA
2110	2120	2130	2140	2150	2160
GAAGAAAAAA	TAAAAGCATT	AGTAGAAATT	TGTACAGAAA	TGGAAAAGGA	AGGGAAAATT
2170	2180	2190	2200	2210	2220
TCAAAATTG	GGCCTGAAAA	TCCATACAAT	ACTCCAGTAT	TTGCCATAAA	GAAAAAAAGAC
2230	2240	2250	2260	2270	2280
AGTACTAAAT	GGAGAAAATT	AGTAGATTC	AGAGAACTTA	ATAAGAGAAC	TCAAGACTTC
2290	2300	2310	2320	2330	2340
TGGGAAGTTC	AATTAGGAAT	ACCACATCCC	GCAGGGTTAA	AAAAGAAAAA	ATCAGTAACA
2350	2360	2370	2380	2390	2400

**FIG. 20**



## Replacement Sheet

GTACTGGATG	TGGGTGATGC	ATATTTTCA	GTTCCCTTAG	ATGAAGACTT	CAGGAAGTAT
2410	2420	2430	2440	2450	2460
ACTGCATTTA	CCATACCTAG	TATAAACAAAT	GAGACACCAAG	GGATTAGATA	TCAGTACAAT
2470	2480	2490	2500	2510	2520
GTGCTTCCAC	AGGGATGGAA	AGGATCACCA	GCAATATTCC	AAAGTAGGCAT	GACAAAAATC
2530	2540	2550	2560	2570	2580
TTAGAGCCTT	TTAGAAAACA	AAATCCAGAC	ATAGTTATCT	ATCAATACAT	GGATGATTTG
2590	2600	2610	2620	2630	2640
TATGTAGGAT	CTGACTTACA	AATAGGGCAG	CATAGAACAA	AAATAGAGGA	GCTGAGACAA
2650	2660	2670	2680	2690	2700
CATCTGTTGA	GGTGGGGACT	TACCACACCA	GACAAAAAAC	ATCAGAAAGA	ACCTCCATTC
2710	2720	2730	2740	2750	2760
CTTTGGATGG	GTTATGAAC	CCATCCTGAT	AAATGGACAG	TACAGCCTAT	AGTGCTGCCA
2770	2780	2790	2800	2810	2820
GAAAAAGACA	GCTGGACTGT	CAATGACATA	CAGAAGTTAG	TGGGAAAATT	GAATTGGGCA
2830	2840	2850	2860	2870	2880
AGTCAGATT	ACCCAGGGAT	TAAAGTAAGG	CAATTATGTA	AACTCCTTAG	AGGAACCAAA
2890	2900	2910	2920	2930	2940
GCACTAACAG	AAGTAATACC	ACTAACAGAA	GAAGCAGAGC	TAGAACTGGC	AGAAAACAGA
2950	2960	2970	2980	2990	3000
GAGATTCTAA	AAGAACCACT	ACATGGAGTG	TATTATGACC	CATCAAAAGA	CTTAATAGCA
3010	3020	3030	3040	3050	3060
GAAATACAGA	AGCAGGGCA	AGGCCAATGG	ACATATCAA	TTTATCAAGA	GCCATTTAAA
3070	3080	3090	3100	3110	3120
AATCTGAAAA	CAGGAAAATA	TGCAAGAACG	AGGGGTGCC	ACACTAATGA	TGTAAAACAA
3130	3140	3150	3160	3170	3180
TTAACAGAGG	CAGTGCAAAA	AATAACCACA	GAAAGCATAG	TAATATGGGG	AAAGACTCCT
3190	3200	3210	3220	3230	3240
AAATTAAAC	TACCCATACA	AAAGGAAACA	TGGGAAACAT	GGTGGACAGA	GTATTGGCAA
3250	3260	3270	3280	3290	3300
GCCACCTGGA	TTCCTGAGTG	GGAGTTTGTG	AATACCCCTC	CTTTAGTGAA	ATTATGGTAC
3310	3320	3330	3340	3350	3360
CAGTTAGAGA	AAGAACCCAT	AGTAGGAGCA	GAAACGTTCT	ATGTAGATGG	GGCAGCTAGC
3370	3380	3390	3400	3410	3420
AGGGAGACTA	AATTAGGAAA	AGCAGGATAT	GTTACTAATA	GAGGAAGACA	AAAAGTTGTC
3430	3440	3450	3460	3470	3480
ACCCTAACTG	ACACAACAAA	TCAGAAGACT	GAGTTACAAG	CAATTCACT	AGCTTGCAG
3490	3500	3510	3520	3530	3540
GATTGGGAT	TAGAAGTAA	TATAGTAACA	GACTCACAAAT	ATGCATTAGG	AATCATTCAA
3550	3560	3570	3580	3590	3600
GCACAAACCA	ATAAAAGTGA	ATCAGAGTAA	GTCAATCAA	TAATAGAGCA	GTAAATAAAA
3610	3620	3630	3640	3650	3660

**FIG. 21**



## Replacement Sheet

AAGCAAAAGG	TCTATCTGGC	ATGGGTACCA	GCACACAAAG	GAATTGGAGG	AAATGAACAA
3670	3680	3690	3700	3710	3720
GTAGATAAAAT	TAGTCAGTGC	TGGAATCAGG	AAAGTACTAT	TTTTAGATGG	AATAGATAAG
3730	3740	3750	3760	3770	3780
GCCCAAGATG	AACATGAGAA	ATATCACAGT	AATTGGAGAG	CAATGGCTAG	TGATTTAAC
3790	3800	3810	3820	3830	3840
CTGCCACCTG	TAGTAGCAAA	AGAAATAGTA	GCCAGCTGTG	ATAAATGTCA	GCTAAAAGGA
3850	3860	3870	3880	3890	3900
GAAGCCATGC	ATGGACAAGT	AGACTGTAGT	CCAGGAATAT	GGCAACTAGA	TTGTACACAT
3910	3920	3930	3940	3950	3960
TTAGAAGGAA	AAGTTATCCT	GGTAGCAGTT	CATGTAGCCA	GTGGATATAT	AGAAGCAGAA
3970	3980	3990	4000	4010	4020
GTTATTCCAG	CAGAACACAGG	GCAGGAAACA	GCATACTTC	TTTTAAAATT	AGCAGGAAGA
4030	4040	4050	4060	4070	4080
TGGCCAGTAA	AAACAATACA	TACAGACAAT	GGCAGCAATT	TCACCAAGTAC	TACGGTTAAC
4090	4100	4110	4120	4130	4140
GCCGCCTGTT	GGTGGGCGGG	AATCAAGCAG	GAATTGGAA	TTCCCTACAA	TCCCCAAAGT
4150	4160	4170	4180	4190	4200
CAAGGAGTAG	TAGAATCTAT	GAATAAAGAA	TTAAAGAAAA	TTATAGGCCA	GGTAAGAGAT
4210	4220	4230	4240	4250	4260
CAGGCTGAAC	ATCTTAAGAC	AGCAGTACAA	ATGGCAGTAT	TCATCCACAA	TTTTAAAAGA
4270	4280	4290	4300	4310	4320
AAAGGGGGGA	TTGGGGGGTA	CAGTGCAGGG	GAAAGAATAG	TAGACATAAT	AGCAACAGAC
4330	4340	4350	4360	4370	4380
ATACAAACTA	AAGAATTACA	AAAACAAATT	ACAAAAAATT	AAAATTTCG	GGTTTATTAC
4390	4400	4410	4420	4430	4440
AGGGACAGCA	GAGATCCACT	TTGGAAAGGA	CCAGCAAAGC	TCCTCTGGAA	AGGTGAAGGG
4450	4460	4470	4480	4490	4500
GCAGTAGTAA	TACAAGATAA	TAGTGACATA	AAAGTAGTGC	CAAGAAGAAA	AGCAAAGATC
4510	4520	4530	4540	4550	4560
ATTAGGGATT	ATGGAAAACA	GATGGCAGGT	GATGATTGTG	TGGCAAGTAG	ACAGGATGAG
4570	4580	4590	4600	4610	4620
GATTAGAACCA	TGGAAAAGTT	TAGTAAAACA	CCATATGTAT	TTTCAGGG	AAGCTAGGG
4630	4640	4650	4660	4670	4680
ATGGTTTAT	AGACATCACT	ATGAAAGCCC	TCATCCAAGA	ATAAGTTCA	AAGTACACAT
4690	4700	4710	4720	4730	4740
CCCACTAGGG	GATGCTAGAT	TGGTAATAAC	AACATATTGG	GGTCTGCATA	CAGGAGAAAG
4750	4760	4770	4780	4790	4800
AGACTGGCAT	CTGGGTCAAGG	GAGTCTCCAT	AGAATGGAGG	AAAAAGAGAT	ATAGCACACA
4810	4820	4830	4840	4850	4860
AGTAGACCCT	GAACTAGCAG	ACCAACTAAT	TCATCTGTAT	TACTTTGACT	TTTTTCAGA
4870	4880	4890	4900	4910	4920

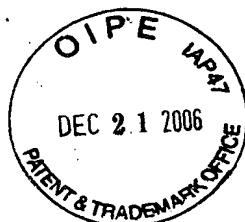
**FIG. 22**



## Replacement Sheet

CTCTGCTATA	AGAAAGGCCT	TATAGGACA	TATAGTTAGC	CCTAGGTGTG	AATATCAAGC
4930	4940	4950	4960	2970	2980
AGGACATAAC	AAGGTAGGAT	CTCTACAATA	CTGGCACTA	GCAGCATTAA	TAACACCAAA
4990	5000	5010	5020	5030	5040
AAAGATAAAG	CCACCTTGC	CTAGTGTAC	GAAACTGACA	GAGGATAGAT	GGAACAAGCC
5050	5060	5070	5080	5090	5100
CCAGAAGACC	AAGGGCCACA	GAGGGAGCCA	CACAATGAAT	GGACACTAGA	GCTTTAGAG
5110	5120	5130	5140	5150	5160
GAGCTTAAGA	ATGAAGCTGT	TAGACATTTC	CCTAGGATTG	GGCTCCATGG	CTTAGGGCAA
5170	5180	5190	5200	5210	5220
CATATCTATG	AAACTTATGG	GGATACTTGG	GCAGGAGTGG	AAGCCATAAT	AAGAATTCTG
5230	5240	5250	5260	5270	5280
CAACAACTGC	TGTTTATCCA	TTTCAGAATT	GGGTGTCGAC	ATAGCAGAAT	AGGCAGTACT
5290	5300	5310	5320	5330	5340
CAACAGAGGA	GAGCAAGAAA	TGGAGCCAGT	AGATCCTAGA	CTAGAGCCCT	GGAAGCATTCC
5350	5360	5370	5380	5390	5400
AGGAAGTCAG	CCTAAAAC TG	CTTGTACCA C	TTGCTATTG T	AAAAAGTGT G	GCTTCATTG
5410	5420	5430	5440	5450	5460
CCAAGTTTGT	TTCACACAA	AAGCCTTAGG	CATCTCCTAT	GGCAGGAAGA	AGCGGAGACA
5470	5480	5490	5500	5510	5520
GCGACGAAGA	CCTCCTCAAG	GCAGTCAGAC	TCATCAAGTT	TCTCTATCAA	AGCAGTAAGT
5530	5540	5550	5560	5570	5580
AGTACATGTA	ATGCAACCTA	TACAAATAGC	AATAGCAGCA	TTAGTAGTAG	CAATAATAAT
5590	5600	5610	5620	5630	5640
AGCAATAGTT	GTGTGGTCCA	TAGTAATCAT	AGAATATAGG	AAAATATTAA	GACAAAGAAA
5650	5660	5670	5680	5690	5700
AATAGACAGG	TTAATTGATA	GACTAATAGA	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCCTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTAA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180

**FIG. 23**



## Replacement Sheet

ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAC
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAAC	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTATATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTCAG	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG
7390	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440

**FIG. 24**



## Replacement Sheet

TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAC	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTA	ATTGAAGAAT	CGCAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GCTAGGTTTA	AGAATAGTTT
7810	7800	7810	7820	7830	7840
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130	8140	8150	8160
CTCCTACAGT	ATTGGAGTCA	GGAACTAAAG	AATAGTGCTG	TTAGCTTGCT	CAATGCCACA
8170	8180	8190	8200	8210	8220
GCCATAGCAG	TAGCTGAGGG	GACAGATAGG	GTTATAGAAG	TAGTACAAGG	AGCTTGTAGA
8230	8240	8250	8260	8270	8280
GCTATTGCC	ACATACCTAG	AAGAATAAGA	CAGGGCTTGG	AAAGGATTTC	GCTATAAGAT
8290	8300	8310	8320	8330	8340
GGGTGGCAAG	TGGTCAAAAA	GTAGTGTGGT	TGGATGGCCT	ACTGTAAGGG	AAAGAATGAG
8350	8360	8370	8380	8390	8400
ACGAGCTGAG	CCAGCAGCAG	ATGGGGTGGG	AGCAGCATCT	CGAGACCTGG	AAAAACATGG
8410	8420	8430	8440	8450	8460
AGCAATCACA	AGTAGCAATA	CAGCAGCTAC	CAATGCTGCT	TGTGCCTGGC	TAGAAGCACA
8470	8480	8490	8500	8510	8520
AGAGGAGGAG	GAGGTGGGTT	TTCCAGTCAC	ACCTCAGGTA	CCTTTAAGAC	CAATGACTTA
8530	8540	8550	8560	8570	8580
CAAGGCAGCT	GTAGATCTTA	GCCACTTTTT	AAAAGAAAAG	GGGGGACTGG	AAGGGCTAAT
8590	8600	8610	8620	8630	8640
TCACTCCCAA	CGAAGACAAG	ATATCCTGTA	TCTGTGGATC	TACCACACAC	AAGGCTACTT
8650	8660	8670	8680	8690	8700

**FIG. 25**



## Replacement Sheet

CCCTGATTGG CAGAACTACA CACCAGGGCC AGGGGTAGA TATCCACTGA CCTTTGGATG  
8710 8720 8730 8740 8750 8760  
GTGCTACAAG CTAGTACCAAG TTGAGGCCAGA TAAGGTAGAA GAGGCCAATA AAGGAGAGAA  
8770 8780 8790 8800 8810 8820  
CACCAGCTTG TTACACCCCTG TGAGCCTGCA TGGAATGGAT GACCCTGAGA GAGAAGTGTGTT  
8830 8840 8850 8860 8870 8880  
AGAGTGGAGG TTTGACAGCC GCCTAGCATT TCATCACGTG GCCCGAGAGC TGCATCCGGA  
8890 8900 8910 8920 8930 8940  
GTACTTCAAG AACTGCTGAC ATCGAGCTTG CTACAAGGGA CTTTCCGCTG GGGACTTTCC  
8950 8960 8970 8980 8990 9000  
AGGGAGGCGT GGCTGGCG GAACTGGGGA GTGGCGAGCC CTCAGATGCT GCATATAAGC  
9010 9020 9030 9040 9050 9060  
AGCTGCTTTT TGCCTGTACT GGGTCTCTCT GTTAGACCA GATTGAGCC TGGGAGCTCT  
9070 9080 9090 9100 9110 9120  
CTGGCTAACT AGGGAAACCCA CTGCTTAAGC CTCAATAAAG CTT

**FIG. 26**